09/299,426
#9

Trial Section Merits Panel
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NONPRECEDENTIAL

Paper No. 201

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

STEPHEN A. **JOHNSTON**
and JOHN C. SANFORD
(5,580,716; 5,840,481; and 09/299,426),

Junior Party,

v.

ROGER N. **BEACHY**,
ROBERT T. FRALEY, and STEPHEN G. ROGERS
(06/917,027),

Senior Party.

Interference No. 104,286

Before McKELVEY, Senior Administrative Patent Judge, and LEE and TORCZON, Administrative Patent Judges.

TORCZON, Administrative Patent Judge.

JUDGMENT

(PURSUANT TO 37 C.F.R. § 1.658)

INTRODUCTION

In view of a panel decision (Paper No. 160) holding that Johnston lacked enablement both in terms of patentability and in terms of support for benefit, Johnston was ordered to show cause how it would account for the nearly one decade gap between its best filing date and the

filing date of senior party Beachy (Paper No. 161). Given that substantial gap, Johnston was required to show why it was diligent and had not abandoned, suppressed, or concealed during that time. Johnston did not address the order to show cause directly, but rather sought review of the panel decision on motions and of single-judge orders denying or dismissing Johnston's other motions (Paper Nos. 152 & 179). Specifically, Johnston sought to have the decision regarding the enablement of its claimed subject matter, and its chain of benefit, reconsidered. Alternatively, Johnston moved to amend its reissue application (and its antecedents) or to add a new reissue application to this interference. The purpose of the amendments and the new reissue application is to add material to cure any incorporation problems. Johnston also sought review of the panel decisions (1) not to designate certain Beachy claims as corresponding to the count, (2) declining to redefine the count, and (3) declining to accord Johnston the benefit, for any of the counts, of its earliest application. Johnston also sought panel review of single-judge orders denying its motion 10, which seeks to have any patent issued from Beachy's application held unenforceable, as well as its post-panel decision motions. Review of the single-judge decisions on motions 10, 11 and 18 is provided in a separate decision (Paper No. 200).

Johnston requested a hearing on its motions 2, 4-8, 10, 11, and 13-18 and on Beachy's motions 4 and 6. The request was granted (Paper No. 179). Beachy sought reconsideration of its motions 3 and 5 (Paper No. 182). A hearing was held on 20 June 2001 with Michael Goldman physically present for Johnston and with Patricia Kammerer present by telephone for Beachy. (Paper No. 199).

Neither Beachy nor Johnston requested review of the decisions on Johnston motion 1 (granted), 3 and 9 (denied), Beachy motions 1 and 7 (granted), 2 (denied) or 8-10 (dismissed). Consequently, the decision with respect to these motions is reaffirmed without further comment.

PROCESS ON RECONSIDERATION AND REVIEW

A panel may reconsider its earlier decision, but it is incumbent on the requester to show the error in the earlier decision. A panel is not bound by the decision of a single judge, but the requester must show an abuse of discretion to obtain relief on a procedural matter. 37 C.F.R. § 1.655(a).

DISCUSSION

The count involves a method of making plant cells or tissue resistant to viral infection by inserting into the plant cells in a deoxyribonucleic acid (DNA) sequence encoding a viral coat protein.

Enablement

The previous panel decision (Paper No. 160) held that Beachy had demonstrated a lack of enablement for Johnston's involved claims. Johnston had argued that its references to articles by Fraley[1] and Horsch[2] provided the requisite enabling disclosure. The panel decision disagreed, noting (at 17) that Johnston's disclosure

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[1] R.T. Fraley et al., "Expression of bacterial genes in plant cells", 80 Proc. Nat'l Acad. Sci. (USA) 4803 (Aug. 1983) (JX 1008) (co-authors Fraley and Rogers are co-inventors with Beachy).

[2] R.B. Horsch et al., "Inheritance of Functional Foreign Genes in Plants", 223 Science 496 (3 Feb. 1984) (BX 2099) (co-authors Fraley and Rogers are co-inventors with Beachy). This paper should not be confused with R.B. Horsch et al., "A simple and general method for transferring genes into plants", 227 Science 1229 (8 Mar. 1985) ("Horsch 85") (JX 1038).

> does not point to any specific portions of the "incorporated" prior art references (e.g., Horsch and Fraley) that one skilled in the art could use to practice the Johnston invention. While it may have been possible for one skilled in the art to have picked and chosen from the teachings set forth in the available literature and arrived at the claimed invention as Johnston argues, one could not do so without undertaking undue experimentation.

In requesting reconsideration of the panel decision, Johnston must show a prejudicial error in the decision. Johnston has characterized the decision as turning on Johnston's failure to properly incorporate all of the necessary enabling support. As the preceding quotation from the decision shows, that characterization is wrong. The decision also held that the art at the relevant time was sufficiently unpredictable that implementing Johnston's disclosure would have required undue experimentation. Moreover, the panel decision (at 19-21) noted that Johnston's applications did not disclose materials or steps necessary to implement Johnston's idea in plants. Ultimately, it is the specification, not the knowledge of those skilled in the art, that must supply the novel aspects of the invention. Genentech, Inc. v. Novo Nordisk A/S, 108 F.3d 1361, 1366, 42 USPQ2d 1001, 1005 (Fed. Cir. 1997).[3]

On reconsideration, Johnston argues that the enablement of its involved claims must be considered separately from its entitlement to the benefit of its earliest 06/714,263 application. Johnston's point is that the disclosure is slightly different, with additional detail in the later disclosures. The panel had disagreed that the disclosures were significantly different. On the other hand, it is certainly true that entitlement to benefit and enablement are different issues.

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[3] Johnston also urges that the panel decision's reliance on Enzo Biochem, Inc. v. Calgene, Inc., 188 F.3d 1362, 52 USPQ2d 1129 (Fed. Cir. 1999) was in error. Of course, Enzo Biochem did not create a per se rule for lack of enablement and every case must be considered on its own facts. This reconsideration decision does not rely on Enzo Biochem, so any putative error is moot. Nevertheless, the factual parallels between Enzo Biochem and this interference are striking.

Accord Reiffin v. Microsoft Corp., 214 F.3d 1342, 1346, 54 USPQ2d 1915, 1918 (Fed. Cir. 2000) (noting an analogous distinction between compliance with 35 U.S.C. 112[1] and entitlement to benefit under 35 U.S.C. 120).[4] While Johnston has not specifically argued the point, the context of its disclosures has changed over time. What was not apparent in 1985 (when the 263 application was filed) or 1986 (when the 06/842,484 continuation-in-part application was filed), may well have become routine by 1989, 1992, 1993, 1994, or 1996 (when the subsequent continuation applications were filed). Beachy has not pointed to any evidence of unpredictability in the art after the mid-1980s.[5] Consequently, the holding that Johnston's involved claims lack enablement is not supported and is vacated. Beachy motion 4 now stands DENIED.

Since Johnston's preliminary motion 8 to add its reissue claims was denied on the basis of lack of enablement, that holding is vacated for the reasons given above. Motion 8 is now GRANTED with regard to claims 140, 143, 146, 149, and 152. It is DENIED with regard to claims 139, 142, 145, 148, and 151, which have already been canceled in the companion 104,400 interference.

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[4] Reiffin observes that the enabling support in the parent of the parent application becomes an issue when there is intervening prior art. Although the issue was not raised, the European published application of Beachy, EP 0 223 452 (27 May 1987), appears to be 35 U.S.C. 102(b) prior art against all but the two earliest Johnston specifications.

[5] It appears that by 1991, using transgenically expressed viral coat proteins to confer viral resistance in plants was fairly well established. See, e.g., Frank van der Wilk et al., "Expression of the potato leafroll luteovirus coat proatein gene in transgenic potato plants inhibits viral infection", 17 Plant Mol. Biol. 431, 431, 438 (1991) ("Van der Wilk") (JX 1054).

Benefit for the 263 and 484 applications

According to Johnston, the panel erred in holding that the 263 application to have lacked an enabling disclosure for the claimed subject matter because it would have required undue experimentation. On reconsideration, we bear in mind that Johnston, as movant, has the burden of justifying the benefit it seeks.

> Factors to be considered in determining whether a disclosure would require undue experimentation...include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). Not all of these factors need to be reviewed to determine enablement. Amgen, Inc. v. Chugai Pharm. Co., Ltd., 927 F.2d 1200, 1213, 18 USPQ2d 1016, 1027 (Fed. Cir. 1991) (noting that the Wands factors "are illustrative, not mandatory. What is relevant depends on the facts."). Indeed, the eighth factor—scope of the claims—has little relevance to determining interference priority since a single enabled embodiment within the scope of the count is sufficient to accord benefit. Cf. Hunt v. Treppschuh, 523 F.2d 1386, 1389, 187 USPQ 426, 429 (CCPA 1975) (distinguishing interference and § 120 benefit); see also Fritz v. Weil, 572 F.2d 856, 866 n.16, 196 USPQ 600, 608 n.16 (CCPA 1978); Anderson v. Norman, 185 USPQ 371, 372 (Comm'r Pat. 1968) (a single embodiment is good enough for interference benefit, but not for patentability benefit). The remainder of the Wands factors can be summarized in this context into two questions: what did the applicant show (factors 2 & 3) and what did the art know (factors 1 & 4-7)?

What did Johnston show?

Johnston did not provide any working example within the scope of the count. Johnston urges that its bacteria examples suffice, but "enabling a proxy for the claimed invention is not the same as enabling the claimed invention itself." National Recovery Techs. v. Magnetic Separation Sys., 166 F.3d 1190, 1197, 49 USPQ2d 1671, 1677 (Fed. Cir. 1999).[6] Johnston has the burden of showing that at the time the 263 application was filed, those skilled in the art considered enablement for bacteria to be equivalent to enablement for plants. On this point, Johnston relies on the testimony of John A. Lindbo (JX 1003). Dr. Lindbo was an undergraduate student at the relevant times (i.e., through June 1986) and began his doctoral program in January 1988 (JX 1004). Dr. Lindbo does not declare that he had any first-hand experience in the field during the relevant period and appears to base his testimony solely on what the cited references show. Consequently, his testimony about what would have been known to those skilled in the art is entitled to little weight beyond what the cited references show.[7] Johnston has not pointed us to a reference showing that those skilled in the art expected techniques that worked in bacteria to work in plants without undue experimentation. Johnston notes that failure to provide working examples is not in itself dispositive (Paper No. 193 (J. Br.) at 33). It is, nevertheless, a serious strike against the movant, particularly when the art is unpredictable. PPG

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[6] Note that a "proxy" cannot be used to establish an actual reduction to practice. Eaton v. Evans, 204 F.3d 1094, 1097, 53 USPQ2d 1696, 1698 (Fed. Cir. 2000).

[7] Interestingly, Beachy's main declarant, Joachim Messing, though clearly one skilled in the art during the relevant period, suffers a similar lack of credibility. In his case, the problem arises from his nearly exclusive reliance on the Johnston disclosures without reference to relevant contemporary publications. The references Johnston cites, including several with the Beachy inventors as co-authors, provide many of the details Dr. Messing declares would have been necessary but were not taught in the Johnston disclosures. Nevertheless, Dr. Messing's overall point that the transgenic plant art "was still in its infancy" (BX 2004 at 7) during the 1985-86 period is fully consistent with the evidence discussed infra.

Indus. Inc. v. Guardian Indus. Corp., 75 F.3d 1558, 1564, 37 USPQ2d 1618, 1623 (Fed. Cir. 1996).

With regard to Wands factor 2—the amount of guidance presented in the disclosure—the Johnston specifications provide little guidance beyond references to papers by Fraley and Horsch. Significantly, these papers are directed to making transgenic plants generally, not to what Johnston identifies (Paper No. 193 at 31) as the "key feature" of the invention—conferring resistance to plants transgenically using viral coat proteins. Thus, even assuming the then-extant plant transgenics techniques worked generally, there is no specific guidance on how to use them in the claimed invention. Thus, this factor is essentially reduced to the second question: what did those skilled in the art know?

What did the art know?

Initially, we discount Johnston's reliance on the Beachy application and the post-filing work of the Beachy inventors published in the Abel article.[8] At the relevant times, the Beachy application was not available to those in the art and is thus not probative of what was known in the art apart from its references to publically available references. Moreover, the successes reported in the Beachy application and the Abel article are as likely attributable to the Beachy inventors' inventive contribution to the art as it is to prior knowledge in the art. Indeed, Beachy cites several papers co-authored by Johnston inventors that appear to acknowledge the pioneering

[8] P.P. Abel et al., "Delay of disease development in transgenic plants that express the tobacco mosaic virus coat protein gene", 232 Science 738 (9 May 1986) (listing all Beachy inventors as co-authors) (JX 1050).

work in Abel.[9] There is no basis on this record for having Beachy's work inure to Johnston's benefit.

Moreover, the Abel paper indicates (at 743) that the mechanism of viral resistance is poorly understood. As late as 1991, van der Wilk still reports (at 437) "[t]he mechanism of coat protein-mediated protection has remained unknown so far." While an inventor need not know why the invention works, a lack of understanding in the art of the underlying mechanism even years later is an indication that the art is unpredictable.[10]

The remaining references are equivocal in their support for Johnston's position that the art was predictable in 1985 and 1986. Fraley indicates problems confronting the transgenic plant art in 1983 (JX 1008 at 4803) and proposes some techniques for overcoming those problems, including transgenically conferring antibiotic resistance to plant cells to provide a selectable marker for transgenics experiments, but concludes with the following tepid prediction (at 4807):

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[9] M.M. Fitch et al., "Stable transformation of papaya via microprojectile bombardment", 9 Plant Cell Rep. 189, 193 (1990) (J.C. Sanford, co-author) (BX 2047).

S. Lius et al., "Pathogen-derived resistance provides papaya with effective protection against papaya ringspot virus", 3 Mol. Breeding 161, 161 (1997) (J.C. Sanford, co-author) (BX 2036).

M.M. Fitch et al., "Virus resistant papaya plants derived from tissues bombarded with the coat protein gene of papaya ringspot virus", 10 Bio/Technology 1466, 1466-67 (Nov. 1992) (J.C. Sanford, co-author) (BX 2035).

R. Grumet, J.C. Sanford & S.A. Johnston, "pathogen-derived resistance to viral infection using a negative regulatory molecule", 161 Virology 561, 567 (1987) (BX 2034). Although this paper attributes (at 567) the idea of pathogen-derived resistance to a 1985 Sanford and Johnston paper, the idea had been expressed a year earlier in L. Sequeira, "Cross protection and induced resistance: their potential for plant disease control", 2 Trends in Biotech. 25, 27 (Mar./Apr. 1984).

Another paper, published slightly after the Abel paper, demonstrated successful transformation of a plant with DNA for a different (not coat) viral protein. D.C. Baulcombe et al., "Expression of biologically active viral satellite RNA from the nuclear genome of transformed plants", 321 Nature 446 (22 May 1986) (JX 1075). That paper could not report whether the technique conferred viral resistance (at 448). Nature charcterizes its selection criteria as "extremely rigorous", http://www.nature.com/nature/submit/get_published/index.html (visited 23 July 2001).

[10] Indeed, closer to the relevant period, the Sequeira paper suggested (at 27) that understanding the biological basis for coat-protein protection would be important to its further application. Similarly, a news article in February 1986, in discussing Abel's work, notes that a researcher at Cornell (one of Johnston's real parties-in-interest) had shown that coat protein expression was not necessarily even the mechanism for viral cross-protection. H. Bialy & A. Klausner, "A new route to virus resistance in plants", 4 Bio/Technology 96 (Feb. 1986) (BX 2038).

> it is quite likely that other bacterial, fungal, or mammalian genes, including those whose products could be expected to modify plant properties in a useful manner, could also be successfully engineered and expressed.

One skilled in the art would understand this prediction to be an invitation to further research. It falls well short of announcing that any gene can be successfully expressed without undue experimentation. Indeed, it does not even mention viral proteins or predict the effects on the cell of expressing foreign proteins generally. The Horsch paper extends Fraley's research by reporting that plants transformed according to Fraley's process can be grown into morphologically normal plants that pass the transgenic trait onto progeny in the manner predicted by classical Mendelian genetics. As with Fraley, Horsch closes with a restrained prediction (at 498) that its results "will greatly facilitate studies of gene expression and regulation in plants." Again, this prediction amounts to little more than an invitation for further experimentation. The Herrera-Estrella paper[11] provides an example of such experiments. Herrera-Estrella introduces an antibiotic-resistance gene as a marker to study light-induced gene expression in plants. The ability to express a marker gene in a well-studied plant metabolic pathway says little about the likelihood of successfully expressing a foreign viral protein coat to confer viral resistance in plants.

The Velten paper[12] discloses a bi-directional plant promoter isolated from *A. tumefaciens* that Velten uses to make vectors for antibiotic-resistence genes, which can be used in transgenic

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[11] L. Herrera-Estrella et al., "Light-inducible and chloroplast-associated expression of a chimaeric gene introduced into *Nicotiana tabacum* using a Ti plasmid vector", 310 Nature 115 (12 July 1984) (JX 1009). Co-author J. Schell is also a co-author on the Velten and De Block papers.

[12] J. Velten et al., "Isolation of a dual plant promoter fragment from the Ti plasmid of *Agrobacterium tumefaciens*", 3 EMBO J. 2723 (1984) (JX 1021).

plants as selection markers. As in the other papers, Velten hedges in his conclusion (at 2728) that the promoters "could be useful in certain applications of genetic engineering in plants." While the identification of a useful promoter constitutes an advance in the transgenic plant art, introducing genes to encode enzymes known to confer resistance to antibiotics is not the same as conferring viral resistance by a mechanism that is not understood. The Odell paper[13] discloses another promoter that works in an *A. tumefaciens*-base vector supplied by Beachy co-inventor Rogers.

The De Block paper,[14] which neither the 263 nor the 484 disclosure cites, reports essentially the same results as Horsch.[15] De Block noted in 1984 (at 1681) that use of the Ti plasmid of *Agrobacterium tumefaciens* as a plant-transforming vector had "long been proposed...and recently this potential has begun to be realized." De Block closes with the statement (at 1688, emphasis added) that

> These model experiments can now be extended to assay for the expression of other DNA sequences which encode functions that may promote plant growth, *resistance to pathogens*, or increase the nutritive or medicinal value of plants.

Thus, De Block maps out a course for further research, including introducing genes for resistance to pathogens, in 1984. The first cited paper actually showing such results (Abel) was not published until 1986, after Johnston's two earliest filing dates.

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[13] J.T. Odell et al., "Identification of DNA sequences required for activity of the cauliflower mosaic virus 35S promoter", 313 Nature 810 (28 Feb. 1985) (BX 1047).

[14] M. De Block et al., "Expression of foreign genes in regenerated plants and in their progeny", 3 EMBO J. 1681 (1984) (with L. Herrera-Estrella as a co-author) (JX 1007).

[15] Indeed, Horsch appears to have "scooped" De Block (at 1688).

The Horsch 85 paper, which neither the 263 nor the 484 disclosure cites, extends the results of the Horsch paper by integrating the steps for making, selecting, and regenerating transgenic plants into a single process, but still only predicts (at 1231) that

> the production of transformed plants could become routine for studies of gene expression and of the physiology or biochemistry of plants, even in laboratories with little expertise in tissue culture methods.

The Horsch 85 paper suggests that the step of transforming plants for study has finally come of age, but the conclusion is still only an invitation for further study. The paper is silent about what genes may reliably be expressed in plants, what the effects of such expression might be on the plants, or whether results in bacteria are now predictably applicable to plants.

Johnston places great emphasis on the cross-examination testimony of Thomas L. German, a Beachy witness, that "to make transgenic plants himself in the mid 1980s, he followed the procedure disclosed in Horsch" (Paper No. 193 at 30). The German testimony in question is (JX 1036 at 9-10):

Q Dr. German, have you yourself ever conducted a transformation experiment?

A Yes, I have.

Q When did you first do that?

A In 1986.

Q And was that a transformation experiment with respect to plants?

A Yes, it was.

Q In that experiment did you use a selection technique?

A Yes, I did.

Q Which technique did you use?

A Kanamycin resistance.

Q How did you know to use that technique?

A I followed the procedure described in a paper written, senior authored by Horsch.

It is clear from the record that Horsch disclosed in two separate papers, one in 1984 and one in 1985, the use of an *A. tumefaciens*-based vector with a kanamycin (antibiotic) resistance gene for use as a selectable marker. German's cross-examination testimony provides no support for Johnston's position beyond what was already apparent from the articles. While the availability of a selective marker appears to be necessary for making transgenic plants, it is not by itself sufficient.

Collectively, the articles cited in Johnston's brief[16] do not suggest that bacteria techniques are readily applicable to plants. Rather, they show an art slowly feeling its way toward solutions for the unique problems facing the transgenic plant art. The Abel paper, the first paper that addresses the specific problem facing one skilled in the art trying to make the subject matter that Johnston is claiming, was published after Johnston's earliest two filing dates in a highly competitive journal,[17] with the Beachy inventors as co-authors.[18] This is hardly compelling evidence that one skilled in the art would have been able to piece together from all of the

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[16] Other papers were cited for the availability of some viral coat proteins for viruses affecting plants. That availability does not appear to be contested in this proceeding and will be assumed.

[17] Science, which characterizes competition among its aspiring contributors as "keen". http://www.sciencemag.org/misc/con-info.shtml (updated December 2000).

[18] This was true despite De Block's earlier (1984) suggestion to pursue pathogen resistance as an application of the evolving transgenic plant techniques.

references in the art an implementation of Johnston's invention without undue experimentation. This particularly true given the absence of any effective guidance in Johnston's 263 and 484 specifications.

The DENIAL of Johnston's motion 2 for the benefit of the 263 application and the holding of no enablement as of the filing date of the 484 application is CONFIRMED.

Incorporation-by-reference

The incorporation-by-reference issue was not necessary to the panel's holding on lack of enablement, as explained in the panel motions decision (e.g., at 15) and again above. It can however, be a sufficient basis for holding that Johnston's claims were not adequately enabled. Johnston's heavy reliance on the Fraley and Horsch articles to show key elements of its claimed invention establishes that their disclosure is essential to the completeness of Johnston's disclosure. Johnston was on notice of its incorporation problem on or about 13 December 1999.[19] While the issue arose after the time for filing responsive motions, the interference rules provide an option in such situations: moving for permission to file a late motion under 37 C.F.R. §§ 1.635 and 1.645(b). Nevertheless, Johnston made no attempt to cure until after the panel motions decision issued.[20] While it is possible to cure an incorporation problem, offering the cure after an adverse judgment subverts the orderly process of the interference. A party cannot be permitted to litigate its case piecemeal—adjusting its position on the same issue in view of adverse decisions—absent some compelling reason for its failure to make such adjustments

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[19] Paper No. 131 (B. Opp. 4) at 5.

[20] Johnston's suggestion that it was not aware earlier that the Fraley and Horsch articles constituted essential material is simply incredible in view of Johnston's heavy reliance on both in its arguments.

sooner. Such conduct is unfair to the opposing party and burdensome to the agency, which must administer the process with finite resources. Johnston has provided no reason other than its belief that action was unnecessary until after the issue had been lost.

As the single-judge order indicates, the attempt to incorporate was both untimely (in view of the notice provided during the motions period) and moot (in view of the panel's holding regarding the unpredictability of the art as of Johnston's earliest filing dates). The incorporation of the Fraley and Horsch articles would not address a fundamental problem for Johnston's case, the unpredictability of the art. The decision to accept a late paper is a matter of procedure. The panel reviews the single-judge order on questions of procedure for abuse of discretion. Johnston has not established any such abuse. The DENIAL of Johnston's motion 13 in part and of motions 14 and 15 and the DISMISSAL of motions 16 and 17 are CONFIRMED.

Johnston's motions for new counts

Johnston seeks review of the decision denying substitution of proposed counts 4 and 5 or alternatively amending count 3. The panel had denied the motions as moot in light of it holding that Johnston's claims were not enabled. Johnston argues that the enablement holding was in error, so the motions substituting the counts must be reconsidered. Johnston's amended count 3 and proposed count 4, however, present the same problems for Johnston as the current count with respect to Johnston's lack of an enabling disclosure in the 263 and 484 specifications. Consequently, even if count 3 were amended or count 4 substituted, Johnston would still not have a constructive reduction to practice before 1989.

Proposed count 5 is directed solely to the construct for expressing viral coat protein in plants. In its motion 4, Johnston took the position that the subject matter of count 5 was not patentable for the reasons given in Johnston's motion 3 (Paper No. 74 at 11 n.2). Johnston's motion 3 was denied and Johnston has not sought reconsideration of that motion. At the same time, substitution of proposed count 5 cannot be properly thought contingent on the denial of motion 3 because the burdens of proof are different (and opposed). Johnston's motion 3 was denied for a failure of proof. That fact that Johnston failed to provide a preponderance of evidence of unpatentability does not mean that the subject matter is patentable, particularly in view of the additional fact that Johnston has admitted that it considers the subject matter of count 5 to have been unpatentable.

Moreover, the reasons Johnston gives for the separate patentability of the count 5 construct are not persuasive. The construct of the count must have utility. Two utilities are provided (Paper No. 74 at 12). First, the method of count 4, i.e., the method of using the putatively novel construct. However, if that is the construct's only use, then the counts would not be separately patentable. The construct cannot have been conceived without a use and conception of the use of a novel construct necessarily includes conception of the construct itself. The other utility Johnston proposes, use of the construct to produce viral coat proteins for further study, is not the sort of substantial utility necessary required in patent law. Brenner v. Manson, 383 U.S. 519, 534-35, 148 USPQ 689, 695 (1966). Since proposed count 5 has no substantial utility beyond its use in the method of proposed count 4, Johnston has not carried its burden as movant for adding a separate count.

Johnston's success regarding the enablement of its claims does not, in itself, warrant substitution of the proposed counts or amendment of the existing count. The splitting of the count in Johnston's motion 4 into a method of use count and a construct count must be DENIED. The amendment of count 3, as proposed in Johnston's motion 5, is moot since it leaves Johnston with the same problem it has with current count 3: the large gap between its earliest possible effective filing date and Beachy's filing date. Consequently, Johnston's motion 5 is DISMISSED. Johnston's contingent motions for benefit of the 263 applications are DENIED for the reasons give with regard to existing count 3.

Consequence of lack of benefit of the 263 and 484 applications

Johnston was under an order to show cause why it is likely to prevail on priority given the large gap between its effective filing date and Beachy's filing date. Johnston's only answer is to try to establish its entitlement to earlier filing dates. After reconsideration, Johnston is still not entitled to an effective filing date before December 1989.[21] That date is still more than four years after Beachy's October 1985 filing date. Consequently, Johnston has failed to show cause for continuing in this interference.

Johnston's unpatentability over Freeman or Bialy

The motions panel granted Beachy's motion 6 for unpatentability of Johnston's involved claims in view of Freeman[22] or Bialy[23] because the articles appeared to describe Beachy's work

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[21] Johnston's 07/449,049 application, filed 14 December 1989, is a continuation of the 484 application.

[22] K. Freeman, "Monsanto creates TMV resistant plants", Genetic Eng'g News 18 (Feb. 1986) (BX 2037).

[23] H. Bialy & A. Klausner, "A new route to virus resistance in plants", 4 Bio/Technology 96 (Feb. 1986) (BX 2038).

and Johnston rested its opposition on its entitlement to an earlier effective filing date (Paper No. 160 at 42). On reconsideration, Johnston again relies solely on its entitlement to the benefit of its 263 application filing date. Johnston is still not entitled to the benefit of its 263 and 484 application filing dates so the GRANTING of Beachy motion 6 is CONFIRMED.

Beachy's written description and best mode motions

Beachy seeks reconsideration of the denial of its motions 3 and 5 alleging that Johnston's claims are unpatentable for failure to disclose a best mode and for lack of written support in the Johnston specifications, respectively. Beachy's best mode argument is grounded on the observation that Johnston discloses no mode for implementing the claimed invention. The problem with this argument is that the best-mode requirement is subjective: if the inventor does not contemplate any best mode, then none need be disclosed. Moreover, the critical time for assessing the best mode disclosure is the time of filing. Transco Prod., Inc. v. Performance Contracting, Inc., 38 F.3d 551, 557, 32 USPQ2d 1077, 1082 (Fed. Cir. 1994). In the present case, Beachy has pointed to no credible evidence that the Johnston inventors contemplated any mode, let alone a best mode, prior to its earliest 263 application filing date.[24] Although Beachy notes that the 484 application, which was filed after its evidence of a Johnston best mode, is a continuation-in-part application of the 263 application, we have held that the disclosure in the 484 application was not materially different from the 263 application's disclosure. Consequently,

[24] Beachy's broader point, that any mode is better than no mode, is intriguing but not necessary to the present decision. Rather than offer dicta, we decline to reach this question at this point. Note, however, that if this interference should be remanded for a priority determination and if Johnston presents evidence prior to its 263 application filing date of an actual reduction to practice, it might be appropriate to revisit the question.

under Transco, Johnston has the benefit of the 263 application for the purposes of assessing any best mode violation. The DENIAL of Beachy's motion 3 is CONFIRMED.

Beachy's argument that Johnston's disclosure lacks written description confuses written description and enablement. Johnston's 263 application (JX 1001) discloses "Resistance derived from the coat protein" (at 12), generalizes the idea to any virus that encodes a protein that helps regulate the virus' reproduction (at 15), and then provides a list of plant viruses for which the technique is predicted to work in a manner analogous to the disclosure for bacteria (at 38-39). The fact that the prediction has little basis in the state of the art at the time is a problem of enablement, not of description.

ORDER

Upon consideration of Johnston's brief for final hearing, Beachy's brief for final hearing, and the 8 March 2001 order (Paper No. 179), and reconsideration of the decision on motions (Paper No. 160), it is—

ORDERED that judgment as to count 3 is awarded against junior party Johnston;

FURTHER ORDERED that Johnston is not entitled to a patent containing claims 11 or 24 of Johnston's 5,580,716 patent, claims 3 or 16 of Johnston's 5,840,481 patent or claims 3, 16, 22-38, 60, 65, 71, 74, 79, 90, 95, 101, 104, 113, 119, 122, 127, 128, 140, 143, 146, 149, or 152 of Johnston's 09/299,426 reissue application, which correspond to count 3;

FURTHER ORDERED that the preliminary statements be returned; and

FURTHER ORDERED that a copy of this decision be given a paper number and be entered in the administrative records of Johnston's 5,580,716 and 5,840,481 patents, its 09/299,426 application, and Beachy's 06/788,002 application.

mcK

FRED E. McKELVEY
Senior Administrative Patent Judge

JAMESON LEE
Administrative Patent Judge

RICHARD TORCZON
Administrative Patent Judge

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cc (first-class mail):

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